ENVIRONMENTAL ASSESSMENT WORKSHEET

The Environmental Assessment Worksheet (EAW) provides information about a project that may have the potential for adverse environmental impacts. The U.S. Environmental Protection Agency (USEPA) Region 5 will use this information to assess the environmental impacts of your project as required by the National Environmental Policy Act (NEPA) before awarding grant funds. The project proposer should supply any and all reasonably accessible data for the worksheet. If a complete answer does not fit in the space allotted, a tach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically.

Project title: Village of Laurelville WWTP Rehabilitation

Proposer:

Contact person M. Jean West

Title:

Mayor

Address:

PO Box 393

Phone:

City, State, ZIP: Laurelville, OH 43135

(740) 332-3341

Fax:

(740) 332-0018

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N/A

Project location County: Hocking

City/Township: Salt Creek

Attach each of the following to the EAW:

County or other area map showing the general location of the project;
U.S. Geological Survey (or other) scale map indicating project boundaries (photocopy acceptable);
Site plan showing all significant project and natural features. (e.g. wetlands, forested areas, streams, 100
year floodplain, etc.)

Purpose and Need for the Proposed Action

a. Explain the underlying problem causing the need for action. Include any documentation that substantiates the need for action (e.g. regulatory enforcement actions, studies, etc.) State the specific objectives of the need for action and the alternative means of accomplishing that objective.

The Village of Laurelville Wastewater Treatment Facility became operational in March 1981. The expected life of the facility was 20 years. The village entered into an agreement with the Village of Adelphi to provide treatment of wastes collected by Adelphi's sanitary sewage collection system (work in progress). To continue to effectively treat sanitary waste from both villages, and to comply with findings of O&M inspections by the Ohio EPA-SEDO (Exhibits E and F), the Laurelville Village Council elected to proceed with renovations of the Laurelville facility to correct deficiencies and prepare the facility to: 1) receive and adequately treat the Village of Adelphi sanitary sewage, 2) continue to receive and adequately treat the Village of Laurelville sanitary sewage, and 3) to upgrade the facility to assure minimal impact of receiving waters.

The Village of Laurelville has a population of 605 with a Low and Moderate Income population of 41.05% (see Exhibit G). Although a restructuring of rates-for-services occurred in 1999 and again in 2000, the renovations needed far exceed the ability of the residents to meet the financial obligations necessary to assure the proper renovations.

Each individual objective is specified in subsequent questions. An alternative for each objective is also discussed. As an overall consideration for the renovation project, the main objective is to restore the ability and capacity to treat sanitary waste to optimal levels, thereby producing an effluent with minimal environmental impact. The project scope was determined by several factors:

- Requirements of inspections conducted by the Ohio EPA
- Increased Suspended Solids, CBOD⁵, and NH-3 levels resulting from the inclusion of the Village of Adelphi
- Engineering studies of sludge levels and aeration patterns in the four aerated treatment lagoons
- Conditions of the existing intermediate sand filters
- A "walk-through" of the entire facility for treatment and maintenance capabilities
- Studies of alternative methods of treatment that will improve the quality of effluent discharge to the receiving stream
- Studies of trends in effluent discharges without renovations
- Studies in rates vs income levels of the population served

b. Is this project a subsequent stage of an earlier project? *No*If yes, briefly describe the past development, timeline and any past environmental review.

c. Are future stages of this project including development on any outlots planned or likely to happen? *No* If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

Alternative Ways of Meeting Objectives Give a complete description of each alternative that satisfies the purpose and need described in (4) above including the proposed action and no action alternatives. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities and include details on equipment use, supply storage, vehicle maintenance, etc.

See Appendix A

Project magnitude data

Total project acreage and/or linear feet of pipeline Existing, no additional land or pipeline.

Number of residential units affected: unattached attached

Commercial, industrial or institutional buildings affected (total square feet):

Indicate square footage of constructed structures:

Office Manufacturing
Retail Other industrial

Warehouse Institutional Light industrial Agricultural

Other commercial (specify)

Building height

Other

(If ≥ 2 stories, compare to heights of nearby buildings)

Note: Unsure what this section is trying to determine. There are roughly 310 homes with a population of 605 persons connected to the sanitary sewer system and therefore are indirectly affected by the treatment facility. The potential of another 180 (+/-) homes with a population of 371 will be affected when Adelphi joins the system. The facility is located on 15 acres of land, none of which will be altered. There is one school, and no industry connected to the system. The remainder of the service connections are residential and small business. The square footage of these buildings is not relevant to the upgrading of the wastewater facility.

Permits and approvals required List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

Unit of governmentType of applicationStatusOhio EPAPermit to InstallApproved

Land use Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines. Also, indicate what areas of the project may occur within any existing rights of way.

The wastewater facility has occupied the same real estate since 1976, when construction began. There will be no changes to the land or use, no increased risks, and no conflicts of computibility. This area is located in an area with three residential dwellings located to the west approximately 1500 + feet from the facility.

Cover types Estimate the acreage of the site with each of the following cover types before and after project:

		Before	Afte
Wetlands		0	0
(List by U.S. Fish & V		0	0
National Wetlands Inv	ventory classification)	0	0
Wooded/Forest		.5.	.5
Brush/Grassland		0	0
Cropland/Farmland		4	4
Lawn/Landscaping		5	5
Impervious surfaces		0	0
import rous cu muous			
Other (describe)	Lagoons	3	3
	Filters	1	1
	Other structures	1.5	
	TOTAL	15	15

If Before and After totals are not equal, explain why:

Fish, wildlife and ecologically sensitive resources

a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.

The receiving waters for the plant effluent, Brimestone Creek, is on the list of scenic waterways in the State of Ohio, therefore, the Laurelville WWTP has stringent limitations regarding plant effluent quality. This is the main reason the renovations are taking place. It is the desire of the village to produce minimal, if not beneficial, impact on the stream. The stream is habitat (dependent upon flow conditions) to chubs, frogs, snakes, crayfish, ducks, herons, mink, and muskrat. Deer and fox are common to the facility, as are Canadian geese. The geese normally assume a nesting habitat on the grounds and use the lagoons as a haven for the goslings.

There will be no detrimental effects in the renovation process. In fact, the renovations have had, and will have a beneficial effect to the stream and land.

b. Are any federal or state-listed endangered, threatened or special concern species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities, etc. on or near the site? __Yes X_No (Attach all Federal and state correspondence or coordination documents [e.g. U.S. Fish and Wildlife Service, State Dept. of Natural Resources, etc.] identifying areas of concern or the lack thereof.)

If yes, indicate the specific resource and describe how and to what degree it would be affected by the project. Indicate if an on-site survey of the resources has been conducted and describe the results. Describe measures to minimize or avoid adverse impacts from destruction, fragmentation, and/or degradation of habitat.

Historic Preservation Does the project have the potential to affect resources listed in or eligible for listing in the National Register of Historic Places? ___Yes X_No

If yes, describe the potential impacts and any mitigation measures. Incorporate the results of all consultation, agreements, and public involvement actions with the State Historic Preservation Officer (SHPO), representatives of local governments, Indian tribes and their Tribal Historic Preservation Officer, Federal agencies, etc. (reference 36 CFR Part 800)

Environmental Justice Does the project area have a proportion of the population, greater than the State's average, who are members of racial/ethnic minority categories or who have incomes less than twice the State's official poverty level? Yes No If yes, then the area of probable impacts is a potential Environmental Justice area and requires a description of the temporary or permanent impacts of the project on the area's low income/minority populations, including all mitigation measures that will be committed to as part of this project. Include demographic data for the State and the block groups included in the area of probable impact to support the conclusion that the area of concern does or does not have high proportions of low income and/or minority residents. (Note: Demographic data needed to calculate population proportions is readily available from the U.S. Census Bureau. (http://www.census.gov))

Physical impacts on water resources Will the project involve the physical or hydrologic alteration (e.g. dredging, filling, vegetation cutting/removal, stream diversion, outfall structure, diking, and impoundment, etc.) of any surface waters such as a lake, pond, stream or drainage ditch? __Yes <u>X</u>No If yes, identify water resource and how it will be affected. Describe alternatives considered and proposed mitigation measures to minimize impacts.

Wetlands Will the project involve the physical or hydrologic alteration of any wetlands? If wetlands will be directly impacted, attach a wetland delineation report done in accordance with the U.S. Army Corps of Engineers 1987 Wetland Delireation Manual. Describe how wetlands will be affected and alternatives considered to avoid where possible, or minimize where unavoidable. Also describe mitigation measures to compensate for any loss in wetland functions and value. *Not Applicable*

Water use Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? Yes XNo If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and applicable permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

Water-related land use management district Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, well head protection area, or state or federally designated wild or scenic river land use district? If yes, identify all affected areas and discuss project compatibility with district land use restrictions or guidelines. *Not Applicable. All work is above 100 year flood elevation.*

Is the project located within a U.S. EPA designated sole source aquifer? If so, describe the impacts to the aquifer resulting from construction and/or operation of the project. No

Erosion and sedimentation Give the acreage to be graded or excavated and the cubic yards of soil to be moved: θ acres; θ cubic yards

Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction. *Not Applicable*

Water quality: surface water runoff

a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans.

Not Applicable

b. Estimate impact runoff on the quality of receiving waters. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Identify the States' designated uses for these water bodies. Are they meeting their designated uses? If not, why not?

Not Applicable

19. Water quality: wastewaters

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

Municipal wastewater - Design capacity of facility:

Flow: .200 MGD

Plant loading December 2001: Total Residual Solids: 196 mg/L CBOD 5-Day: 179 mg/L

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

Lagoon system - (4) 1.5 MG capacity aerated lagoons (total 6 MG) arranged in series and in parallel (e.g. two sets of lagoons, each set containing a primary lagoon and a secondary lagoon). The primary lagoon of each set is more heavily aerated to facilitate aerobic degradation of solids; the secondary lagoon has progressively less aeration to allow settling of minute particles and for the consumption of bacteria by algae. The outflow of each secondary lagoon enters a dosing chamber which feeds the waters into two filter chambers with hanging media filter curtains, aeration, and nitro-soma bacteria for ammonia reduction. The effluent of these filters gravity flows through distribution piping onto the final intermittent sand filters, then into the chlorine contact tank for disinfection. The waters then cascade over a final set of "steps" for further aeration and into Brimestone Creek. Brimestone Creek feeds into Salt Creek, which in turn feeds into the Scioto River, which in turn feeds into the Ohio River.

Composition (averages) of discharged waters in December 2001 were:

Temperature: 7.7 Celsius
Dissolved Oxygen: 10.8 mg/L
pH: 7.77 S.U.
Total Suspended Solids: 3.3 mg/L
Nitrogen, Ammonia .002 mg/L
CBOD5: 2.25 mg/L
Flow (est) .089 MGD

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

Not Applicable

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

Not Applicable

20. Geologic hazards and soil conditions

Not Applicable			
a. Approximate depth (in feet) to ground water: to bedrock: minimum	minimum average	average	
D 11 Cd CH :			

Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations, karst conditions or earthquake prone areas. Describe measures to avoid or minimize environmental problems due to any of these hazards.

b. Describe the soils on the site, giving NRCS classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Assess the potential for contamination of drinking water wells from such contamination. Discuss any mitigation measures to prevent such contamination.

21. Solid wastes, hazardous wastes, storage tanks

a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and/or operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

Solid waste: Sand from sand filters. Sand has been removed from the site and disposed at a site approved by the Ohio EPA. The sand was spread to a thickness of no greater than 1", was surrounded by, and covered by a compacted layer of clay. The sand tested as non-toxic material.

- b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission. *Not Applicable*
- b. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

Site has a 250-gallon aboveground gasoline tank, and a 100 gallon elevated diesel fuel tank. Site also has a 50-gallon below ground diesel tank for the emergency generator. There are no emergency response containment plans in effect due to the size of the tanks.

22. Traffic

Not Applicable

Parking spaces added.

Existing spaces (if project involves expansion).

Estimated total average daily traffic generated.

Estimated maximum peak hour traffic generated (if known) and time of occurrence.

Provide an estimate of the project's impact on traffic congestion on affected roads and describe any traffic improvements (temporary or permanent) that are necessary. If applicable, discuss its impact on any metropolitan or regional transportation system(s).

23. Vehicle-related air emissions Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, a detailed air quality analysis should be provided.

Not Applicable

24. Stationary source air emissions Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

Not Applicable to Project

25. **Odors, noise and dust** Will the project generate odors, noise or dust during construction or during operation?

Yes XNo

If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life.

26.	Nearby resources Are any of the following resour	rces on or in	proximity	to the site?
Arc	bagological historical or architectural resources?	Yes X No		

Prime or unique farmlands or land within an agricultural preserve? _Yes XNo

Designated parks, recreation areas or trails? Yes No

Scenic views and vistas? Yes XNo

Unique or rare wetland areas such as bogs, fens, sloughs, etc.? $\underline{\underline{\hspace{0.5cm}}}$ Yes $\underline{\underline{\hspace{0.5cm}}}$ No

Other unique resources? Yes X No

If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures taken to first avoid, then minimize adverse impacts.

- 27. **Visual impacts** Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?

 Yes XNo If yes, explain.
- 28. Compatibility with plans and land use regulations Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency? If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, describe existing local zoning issues and explain any impact the project may have on them. *No adopted plans*
- 29. Impact on infrastructure and public services Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? __Yes \underline{X} No. If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW.)
- 30. Cumulative impacts National Environmental Policy Act (NEPA) regulations part 1508.7 requires that decisions consider the "...incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Identify any past, present or reasonably foreseeable future projects whose impacts on a particular resource (or resources) may interact with the impacts from the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts (or discuss each cumulative impact under appropriate item(s) elsewhere on this form). None

- 31. **Relocation** Will people be relocated because of this project? If yes, describe the extent and nature of the relocations. Many relocation-related impacts and activities are covered by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended. *Not Applicable to Project*
- 32. **Population Characteristics** Will the characteristics of the area's population change as a result of this action? This includes changes in total number of people; influx and outflow of temporary workers; seasonal residents; and changes in sociodemographic characteristics. If yes, explain and describe measures to minimize or avoid adverse impacts to all affected groups. *Not Applicable to Project*
- 33. Community Structures and Institutions Will the project result in changes in established links between neighboring or associated localities? Will the project result in changes in family networks, business networks, and other social networks? Is the project consistent with local, & regional economic development plans? Will this project have economic impacts that change the employment opportunities, cause changes in the local labor market, or reduce transit options? Will the project cause changes in cultural characteristics? *Not Applicable to Project*
- 34. Quality of Life Will the project result in changes in local perceptions of risk, health, or safety? Will this project foreclose other options in the community's long term plans or cause changes in trust of any decision-making or planning institutions? Has the community expressed increased concerns about relocation or displacement? Will this project result in diminished opportunities for quality of life for any of the effected populations? At project completion is there a need for monitoring? If so, who will carry out that function? Are there any other concerns about social well-being? If yes, explain and describe measures to minimize or avoid adverse impacts.

Not Applicable to Project

35. Other potential environmental impacts If the project may cause any adverse environmental impacts not addressed by items 1 to 34, identify and discuss them here, along with any proposed mitigation.

None

36. Summary of issues List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

None

CERTIFICATION Signed Environmental Assessment Worksheets may be made available for public notice. I hereby certify that:

The information contained in this document is accurate and complete to the best of my knowledge. The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions.

Signature

Date 03-06-02

Title

M. Jan West

NOTE: This Environmental Assessment Worksheet was adopted, with modifications, from the EAW developed by the Environmental Quality Board at Minnesota Planning.

The Village of Laurelville Wastewater Treatment Facility Renovation Project Environmental Assessment Worksheet



Alternative Ways of Meeting Objectives Give a complete description of each alternative that satisfies the purpose and need described in (4) above including the proposed action and no action alternatives. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities and include details on equipment use, supply storage, vehicle maintenance, etc.

Alternative Ways of Meeting Objectives

<u></u>	Description	Alternatives
 Existing rehabilitation/New process	Removal and disposal of sand from intermittent sand filters 1,2,3 and 4. Installation of acrated "Aqua-mat" hanging media filters in filters I & 4. Installation of Nitrosoma injection lines in filters I & 4 for ammonia-nitrogen reduction. Installation of new distribution piping in filters I & 4. Installation of new distribution piping in filters I & 3. Installation of new distribution piping in filters 2 & 3. Installation of new distribution piping in filters 2 & 3. Installation of new distribution piping in filters 2 & 3. Installation of new distribution piping in filters 2 & 3. Installation of new distribution piping in filters 2 & 3. Installation of new distribution includes the replacement of 2 of the existing media filters with a different technology that will result in increased effectiveness of Suspended Solids, CBOD, and Ammonia. Filters I and 4 will incorporate hanging media filters, compressed air aeration to further enhance mixing and increase Dissolved Oxygen, and introduction of nitro-soma bacteria to decrease ammonia-nitrogen. (See engineering data). The Ohio EPA has approved this change. (Permit attached)	1. Continue to bypass sand tilfers a. Increased CBOD, SS, and Ammonia levels in discharged effluent 2. Replace and restore per description a. See attached data from Hinde Engineering regarding improvements of effluent quality 3. Restore all filters with sand a. Continued need to replace sand every 2-5 years b. Disposal of old sand is costly and lends to potential environmental impact
New	Add pervious covers to media filters 1 and 4 Retards growth of "duck-weed" and algae. Reduces the loading of these organics on the final intermittent sand filters	Add covers Do not add covers a. Increased likelihood of aquatic growth due to sunlight and nutrient enriched waters
Existing rehabilitation	Replacement of defective pumps and addition of spare pumps to inventory	Assure uninterrupted a. Assure uninterrupted pumping of raw wastewater from the collection system and of lagoon discharge to media filters a. Potential for interruptions

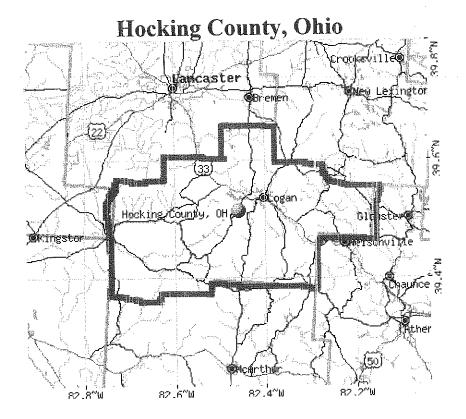
Objective	Type	Description	All Constitutions
Electrical rehabilitation	Evicting rehabilitation		שאושון שוני
	LAISTING ICHADIIITALIOII	newire and/or replace external controls, lighting,	1. Do not replace or repair
	9.1	switching, motors and contacts damaged by hydrogen	a. Hazard to staff
		sulfide vapors and weather.	b. Potential for equipment
			c. Potential for fire
			2. Replace or repair
Tiff Chation Cuids B. ::			
Circ Station Guide Kall	Existing rehabilitation	Replace deteriorated and obsolete lift station pump guide	l. Do not replace
Systems		rails with systems designed for existing/new pumps.	a. Potential for risk or
			death to operator or
		Guide rail systems are designed to allow the operator to safely	maintenance staff
		remove, service, and reinstall lift station pumps without	
		entering the wet wells. The main raw sewage lift station is 35	
		feet in depth and constitutes a hazardous entry situation	
		without the guide rail systems. Current systems are designed	
		for the original numbs that are no longer manufactured	
Office lift station	Existing rehabilitation	Replacement of defentive office/leb consecution.	
	0	sechiarement of detective office/ian sewage grinder pump	 Do not replace
			 a. Hazardous to employees
		Original unit non-repairable. This unit collects and pumps the	 b. Improper pretreatment
		sanitary sewage from the office/lab to the headworks of the	of waste
		plant. Presently, an employee must periodically manually	
2 200	The state of the s	pump the sewage into a lagoon.	
Effluent flow motor	Existing rehabilitation	Replace defective offluent flow meter with new unit	1. Do not replace
			a. Guess discharge volume
		Will allow more precise measurement of effluent discharge to	
		receiving stream	
)	2. Replace with hour meters for
			27 - 277 1
			a. Less effective
			c. Does not allow
			comparative data for
			loss through evaporation
			or leakage

Installation of equipment at the influent channel to
infroduce metered doses of toxin-free bacteria to assist in sludge digestion and improve the effectiveness of the aerated lagoon biological process.
Repair or replace existing refrigerated composite samplers at influent channel
Replace diesel generator drive engine. Existing engine has 22 years of service and has suffered
internal corrosion of the head and cylinder chambers due to coolant problems. The generator is used as a source of 3-phase power for essential equipment during power outages or fluctuations in power that would damage electrical equipment
Replacement of existing gas chlorination equipment with an alternative method of disinfection, such as UV.
The existing gas equipment is based on metering 99.9% pure chlorine gas into a recirculating water supply in the chlorine contact chamber, immediately prior to discharge into the receiving stream.
Replacement of security fencing around the perimeter of the facility. Reduces vandalism and the potential for injury or death to wildlife or humans.
Existing fence is 22 years old and has been deteriorated by weather, vapors, flooding, and fallen trees.
Addition of a spare blower/drive unit assembly to provide air to the aeration system in all lagoons

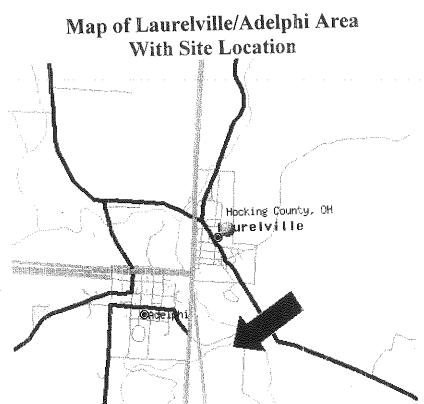
Objective	Type	Description	Attornatives
Administrative Building	New	Addition or new construction to house administrative and billing functions. Present office is located in the same room as the lab, and is adjacent to the blower room, emergency power room, and chlorine room. Hazardous to employees hearing, to potential chemical contamination, and potential for skewed laboratory results from contamination. This is also a public area, and the village is subject to potential lawsuits should any visitor become afflicted with any hazard previously mentioned.	1. Do not build a. Remaining threat of exposure or contamination b. Remaining threat of legal action 2. Build a. Reduces threats and hazards b. Uses existing land in immediate area of the current office/lab/control/disinfecti on room, so no additional impact to the environment is detected
Equipment	» e Z	Purchase of an inspection camera to view the condition and/or problem areas of the sanitary sewer collection system. The collection system was completed in 1979 and is at an age where periodic inspections should be made to assure the soundness of the infrastructure. Inspections will allow a visual location to be determined for the repairs of any infiltration points, root intrusions, illegal connections, and clogged piping, all of which can lead to decreased effectiveness of the wastewater treatment process and loss of service to the residents of the village.	Assume an "out of sight, out of mind" attitude a. Does not address the problems Contract services a. Costly, considering the village has over 7 miles of collection system infrastructure
Lagoon weirs, gates, and catwalks	Existing rehabilitation	Replacement of seized level control gates for all lagoons	None

	200	Description	Alternatives
Service truck, safety equipment, tools	New/Existing	Replaces the 12-year-old service truck used for all aspects of plant/collection system maintenance. Current vehicle is prone to frequent maintenance and is not sized properly to tow trailers or the jet sewer cleaning equipment.	None
		Safety equipment to include a light bar/siren/loudspeaker, strobe headlamps and tail lamps, and a two-way mobile radio. Traffic cones and signs to be erected during collection system repair work is needed, as well as a standard first-aid kit. A truck mounted utility body should include flood lamps powered by a small generator for night site safety. An electric ventilation fan and gas/oxygen sensor will be included for hazardous entry conditions.	
		Tools should include, but are not limited to: standard hand tools, and a gasoline powered demolition saw.	
Excavator/backhoc	New	Equipment for excavation during renovations, installation of new sewer taps, and collection system repairs.	Contract labor at \$50-75/hour if available.

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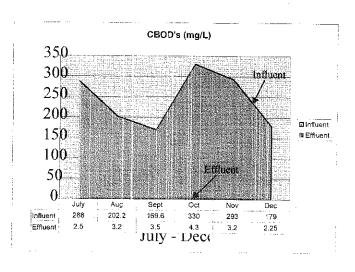
USGS Map of Site Area Laureiville iem 241) Adelphi (BM 838)

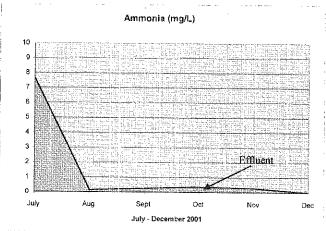


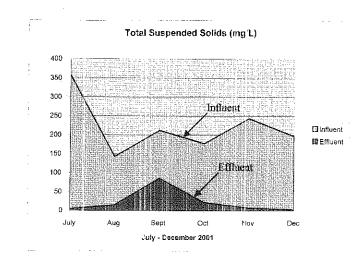


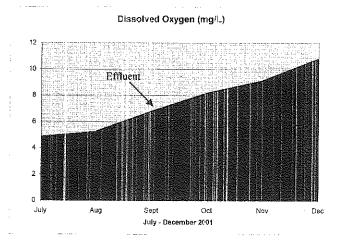
System Performance Information For The ADS Advanced Microbial Treatment System ("AMTS")

Laurelville, Ohio WWTP July – December 2001 Data









AMTS is a wastewater treatment system incorporating ADS fine bubble diffusion aeration, AquaMats® substrate technology and bioaugmentation with Bacta-Pur® biological products.

Air Diffusion Systems - a John Hinde Company

3964 Grove Avenue Gurnee, Illinois 60033 Tel: 847-782-0044 • Fax: 847-782-0055 jhinde@airdiffusion.com www.airdiffusion.com

Table DP-1. Profile of General Demographic Characteristics: 2000

Geographic Area: Laurelville village, Ohio

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
Total population	533	100.0	HISPANIC OR LATINO AND RACE		
	-		Total population	533	100.0
SEX AND AGE			Hispanic or Latino (of any race)	3	0.6
Vale	254	47.7	Mexican	-	-
Female	279	52.3	Puerto Rican	- 1	
	20	6.0	Cuban	-	-
Jnder 5 years	33	6.2	Other Hispanic or Latino	3	0.6
to 9 years	32	6.0	Not Hispanic or Latino	530	99.4
0 to 14 years	25	4.7	White alone	523	98.1
15 to 19 years	36	6.8			
20 to 24 years	28	5.3	RELATIONSHIP		
25 to 34 years	68	12.8	Total population	533	100.0
35 to 44 years	76	14.3	In households	533	100.0
45 to 54 years	66	12.4	Householder	256	48.0
55 to 59 years	22	4.1	Spouse	102	19.1
60 to 64 years	30	5.6	Child	138	25.9
65 to 74 years	65	12.2	Own child under 18 years	101	18.9
75 to 84 years	36	6.8	Other relatives	15	2.8
35 years and over	16	3.0	Under 18 years	8	1.5
· ·	40.4	~~	Nonrelatives	22	4.
Median age (years)	40.1	(X)	Unmarried partner	10	1.9
18 years and over	419	78.6	<u>-</u>		
	191	35.8	In group quarters	_	
Male	228	42.8			1
Female		E	Noninstitutionalized population	<u> </u>	
21 years and over	403	75.6			
62 years and over	133		HOUSEHOLD BY TYPE	056	400
65 years and over	117	22.0	Total households	256	100.
Male	48		Family households (families)	137	53.
Female	69	12.9	With own children under 18 years	65	25.
		j	Married-couple family	102	39.
RACE			With own children under 18 years	43	16.
One race	529	99.2	Female householder, no husband present	22	8.
White	526	98.7	With own children under 18 years	14	5.
Black or African American	-	-	Nonfamily households	119	46.
American Indian and Alaska Native	1	0.2	Householder living alone	110	43.
Asian	-	-	Householder 65 years and over	58	22.
Asian Indian	-	-			-
Chinese	_	-	Households with individuals under 18 years	72	l .
Filipino	_	-	Households with individuals 65 years and over	95	37
Japanese	_	_	Average boundbald size	2.08	c
Korean	-	-	Average household size	2.86	1 :-
Vietnamese	_	-	Average family size	2.00	//
Other Asian 1	-	_	,	Į.	
Native Hawaiian and Other Pacific Islander	-	-	HOUSING OCCUPANCY	077	400
Native Hawaiian	_	.	Total housing units	277	
Guamanian or Chamorro	_		Occupied housing units		1
Samoan	_	l _	Vacant housing units	21	7
Other Pacific Islander ²	_	1 .	For seasonal, recreational, or	1 .	
Some other race	2	٠, ،	occasional use	1	0
				2.2	(
Two or more races	4	0.0	Homeowner vacancy rate (percent)	7 5	,
Race alone or in combination with one			Rental vacancy rate (percent)	7.5	(
or more other races: 3			I back and a remain of the		l
White	530	99.4	HOUSING TENURE		
Black or African American	550	33.4	Occupied nousing dans	256	1
American Indian and Alaska Native	4	\ no	Owner-occupied housing units	133	1
	24	0.8	Renter-occupied housing units	123	48
Asian	-		A		. /
Native Hawaiian and Other Pacific Islander	-]	Average household size of owner-occupied units.	2.27	
Some other race	3	ij 0.6	Average household size of renter-occupied units	1.88	i (

⁻ Represents zero or rounds to zero. (X) Not applicable.

¹ Other Asian alone, or two or more Asian categories.

Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.
 In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Low- and Moderate-Income Populations in Hocking County

Community	Tract*	Block*	Total Pop.	LMI Pop.	LMI Universe	LMI Pct.
Green township		Community Totals:	2,041	1,031	2,087	49.40
	965100	1	46	0	62	0
•	965300	1	4	19	26	73.08
	965400	1	448	222	432	51.39
	965400	3	311	183	339	53.98
	965400	4	382	147	368	39.95
	965500	2	89	5	71	7.04
	965500	3	761	455	789	57.67
Laurel township		Community Totals:	968	329	979	33.61
	964900	3	246	82	236	34.75
	964900	2	30	0	18	0
	965000	1	22	12	12	100
·	965000	2	3	0	0	0
	965000	3	24	5	13	38.46
	965100	3	605	212	652	32.52
144. 1	965200	3	38	18	48	37,5
Laurelville village		Community Totals:	<u>605</u>	<u>243</u>	592	41.05
	965000	2,	- 805 533	243	592	41.05

Page 2 of 4

^{*}Tract and Block data is only for that portion of the tract or block located in the community. Wednesday, August 08, 2001

Southeast District Office

2195 Front Street Logan, OH 43138 TELE: (740) 385-8501 FAX: (740) 385-6490

Bob Taft, Governor Christopher Jones, Director

February 2, 2000

RE: HOCKING COUNTY
VILLAGE OF LAURELVILLE
WASTE WATER TREATMENT PLANT
O & M INSPECTION
CORRESPONDENCE (PWW)

James Wheeler Administrator of Sewer and Water PO Box 441 Laurelville, OH 43135

Dear Mr. Wheeler:

On January 11, 2000 I conducted an operation and maintenance inspection of the Village of Laurelville's wastewater treatment plant (WWTP). Warren White accompanied me during the inspection. A number of deficiencies were found at the time of the inspection. The following observations were made:

- 1. Only one blower was working, the other blower pump was locked-up. The plant must have two operational blower pumps and motors at all times. Extra maintenance part should be kept on site for emergency repairs.
- 2. The office/lab lift station for sanitary waste was not operational. It needs a complete overhaul.
- 3. The cumminator was working but had a loud scraping sound as if the bearings were worn out. This is the only cumminator at the plant. Should the cumminator break-down the bar screen would need to be used. This would require considerable maintenance. Currently, Mr. White operates the Water Treatment Plant and WWTP, which would reduce his ability to maintain this operation and perform other responsibilities.
- 4. Lagoons 2a and 2b had irregular aeration patterns. This may be due to the subsurface aerator headers not working properly. Many lifting cables to remove the headers were not functional in all four lagoons, thus making inspection of headers impossible. Please investigate and repair the aeration system as soon as possible.
- 5. All four lagoons had baffles in various states of disrepair. None were functioning as designed. They should be repaired and operational as soon as practicable.
- 6. The sand filters were full of water. A tractor driven pump was being used to empty the filter into a manhole. The sand filters have been and are continuing to be by-passed due to clogging. It appears that the sand filters have overflowed onto the ground and possibly has reached Brimstone Creek. Ohio EPA has not been notified of this overflow.

VILLAGE OF LAURELVILLE FEBRUARY 2, 2000 PAGE 2

- 7. Sand filter dosing chamber had a thick layer of duck weed on the surface. A small submersible pump was located in the corner of the sand filter dose chamber and was pumping into the chlorine contact tank thru a blue 2" hose. This pump is used to by-pass the sand filters. Control of duck weed and maintenance of the sand filter dosing chamber are essential to proper function of the sand filter.
- 8. Effluent flow monitor was inoperable.
- 9. Composite sampler was not operable.

Many of the above maintenance issues listed have been brought to the attention of the village through previous inspection letters sent by the Ohio EPA. Mr. White provided me with a report that was given to council entitled "Laurelville WWTP State of the Facility, December 1999". In this report Mr. White has identified all the deficiencies and repair problems I have listed with a few additional ones. Proper maintenance of the WWTP is imperative for proper operation. It is essential that the village make the above repairs to achieve proper treatment. The village will be receiving additional flows from the Village of Adelphi in the near future which will be an increased strain on those systems that are currently not operating or operating at less than full capacity.

Please provide Ohio EPA with a detailed list of maintenance and/or repairs of each of the above items the village will be correcting to get the WWTP in full operational condition. Additionally, include a time schedule for completing each item. Please provide this office, within twenty-one (21) days from the date of this letter, a response addressing the corrections and time frame for those corrections. Any changes in function of a treatment unit, such as conversion from sand filter to rock filter, will require a Permit to Install from the Ohio EPA. Should you have any questions, you may contact me at 740-380-5240.

Sincerely,

Randy D. Spencer & District Engineer

Division of Surface Water

RDS/mr

c:

c: Warren S. White, Supt. (Attachments)

Village of Laurelville WWTP

Mayor and Council Village of Laurelville

Date:

March 28, 200

To:

Warren S. White, Supt.

Village of Laurelville WWTP

PO Box 217

Laurelville, OH 43135



Division of Surface Water

FROM:

Randy D. Spencer

Southeast District Office

District Engineer

2195 Front Street

Permits Section (614) 380-5240

Logan, Ohio 43138

(614) 385-6490 FAX

e-mail: randy.spencer@epa.state.oh.us

Ohio EPA Online: http://www.epa.ohio.gov/

Warren - As I said during our phone call on March 28, 2000 you should inform Ohio EPA, after your meeting with Mr. Hind and the village council, as what steps will be taken to cover each item in my previous inspection letter. It sounds as though the Village may be planning on correcting many problems at the plant that you, in your state of the facility document, and I have identified. Items not covered in this correction plan should be addressed as future problems to be corrected with a <u>tentative</u> schedule. While a Permit to Install is not required for the corrective maintenance issues, I would like a detailed list of what the Village is going to do to correct each problem.

Permit to Install applications are attached for the sand filter to rock filter change the Village proposes. Included are the instructions, From A (everyone completes this) and From B4. The last from has many parts and for the rock filter you should complete pages B4-1 and B4-2, and B4-5-1 Attachment V: Filtration. In the submittal you should include a text explanation of the project with the appropriate numeric details.

Should you have any questions, please contact me at 740-380-5240.

Randy Spencer





STREET ADDRESS:

MAILING ADDRESS:

Lazarus Government Center 122 S. Front Street Columbus, OH 43215-1099 TELE: (614) 644-3020 FAX: (614) 644-2329

P.O. Box 1049 Columbus, OH 43216-1049

March 16, 2001

Re:

Laurelville

Hocking County

Application No. 06-6289

Application for Aerated Media Filters for Laurelville Wastewater Treatment Plant at 16111 Creamery Hill Road

Plans Received August 31, 2000

Revised Plans Received March 2, 2001

From Air Diffusion Systems

CERTIFIED MAIL

Laurelville Wastewater Treatment Plant Attn: Warren White P.O. Box 217 16111 Creamery Hill Road Laurelville, Ohio 43130

Ladies and Gentlemen:

Enclosed is the Ohio EPA Permit to Install which will allow you to install the described source in the manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The issuance of this Permit to Install is considered to be a final action of the director. Any person who was a party to this proceeding may appeal this action to the Environmental Review Appeals Commission pursuant to Ohio Revised Code 3745.04. To appeal this action, a written notice of appeal, setting forth the action complained of and the grounds for appeal, must be filed with the Environmental Review Appeals Commission at 236 East Town Street, Room 300, Columbus, Ohio 43266-0557, within thirty (30) days after the date of this letter. You must also serve a copy of the notice of appeal to the director of Ohio EPA and the Environmental Enforcement Section of the Office of the Attorney General within three (3) days of filing a notice of appeal with the Environmental Review Appeals Commission.

You should note that a general condition of your permit states that issuance of the permit does not relieve you of the duty of complying with all applicable federal, state, and local laws, ordinances, and regulations.

If you have any questions, please contact the Ohio EPA district office to which you submitted your application.

Sincerely

Martha D. Spurbeck, Supervisor Permit Processing Unit

Permit Processing Unit Division of Surface Water

MDS/sg

Enclosure

CC:

Southeast District Office

Hocking County Health Department

Air Diffusion Systems
Village of Laurelville

Bob Taft, Governor Maureen O'Connor, Lieutenant Governor

		100 mg

Ohio Environmental Protection Agency

Permit to Install

Application No: 06-6289

Applicant Name: Laurelville Wastewater Treatment Plant

Address: P.O. Box 217, 16111 Creamery Hill Road

City: Laurelville State: Ohio, 43130

Person to Contact: Warren White

Telephone: 740-332-9101

Description of Proposed Source: Aerated Media Filters for Laurelville Wastewater Treatment Plant at 16111 Creamery Hill Road, Laurelville, Hocking County

Issuance Date: March 16, 2001 Effective Date: March 16, 2001

The above named entity is hereby granted a permit to install for the above described source pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source of environmental pollutants will operate in compliance with applicable state and federal laws and regulations. Issuance of this permit does not constitute expressed or implied assurance that, if constructed or modified in accordance with those plans and specifications, the above described source of pollutants will be granted the necessary operating permits. This permit is granted subject to the following conditions attached hereto.

Ohio Environmental Protection Agency

Christopher Jones

Director

P. O. Box 1049,

122 South Front Street

Columbus, OH 43216-1049

Laurelville Wastewater Treatment Plant Page 2 of 2 March 16, 2001

This permit shall expire if construction has not been initiated by the applicant within eighteen months of the effective date of this permit. By accepting this permit, the applicant acknowledges that this eighteen month period shall not be considered or construed as extending or having any effect whatsoever on any compliance schedule or deadline set forth in any administrative or court order issued to or binding upon the permit applicant, and the applicant shall abide by such compliance schedules or deadlines to avoid the initiation of additional legal action by the Ohio EPA.

The director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records, or reports pertaining to the construction, modification, or installation of the above described source of environmental pollutants.

Issuance of this permit does not relieve you of the duty of complying with all applicable federal, state, and local laws, ordinances, and regulations.

Any well, well point, pit, or other device installed for the purpose of lowering the ground water level to facilitate construction of this project shall be properly abandoned in accordance with the provisions of this plan or as directed by the director or his representative.

Any person installing any well, well point, pit or other device used for the purpose of removing ground water from an aquifer shall complete and file a Well Log and Drilling Report form with the Ohio Department of Natural Resources, Division of Water, within 30 days of the well completion in accordance with the Ohio Revised code Section 1521.01 and 1521.05. In addition, any such facility that has a capacity to withdraw waters of the state in an amount greater than 100,000 gallons per day from all sources shall be registered by the owner with the chief of the Division of Water, Ohio Department of Natural Resources, within three months after the facility is completed in accordance with Section 1521.16 of the Ohio Revised Code. For copies of the necessary well log, drilling report, or registration forms, please contact:

Ohio Department of Natural Resources Fountain Square Columbus, OH 43224-1387 (614) 265-6717

The proposed wastewater disposal system shall be constructed in strict accordance with the plans and application approved by the director of the Ohio Environmental Protection Agency. There shall be no deviation from these plans without the prior express, written approval of the agency. Any deviations from these plans or the above conditions may lead to such sanctions and penalties as provided for under Ohio law. Approval of this plan and issuance of this permit does not constitute an assurance by the Ohio Environmental Protection Agency that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

The treatment unit shall be maintained and remain in operation year round.

This permit applies to a wastewater disposal system designed to serve an average daily hydraulic flow of no more than 200,000 gallons.

No liquids, sludges, or toxic or hazardous substances other than those set forth in the approved permit shall be accepted for disposal without the prior written approval of the Ohio Environmental Protection Agency.

Filtering material used in filters shall comply with material specified in approved plans and specifications.

